

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 552 486 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92121834.3**(51) Int. Cl.⁵: **B41J 35/14**(22) Date of filing: **22.12.92**(30) Priority: **25.12.91 JP 343448/91**(43) Date of publication of application:
28.07.93 Bulletin 93/30(84) Designated Contracting States:
DE FR GB IT(88) Date of deferred publication of the search report:
27.10.93 Bulletin 93/43(71) Applicant: **SEIKO EPSON CORPORATION**
4-1, Nishishinjuku 2-chome
Shinjuku-ku Tokyo-to(JP)(72) Inventor: **Asai, Naoki**
c/o Seiko Epson Corporation,
3-5, Owa 3-chome
Suwa-shi, Nagano-ken(JP)
Inventor: **Morozumi, Choji**

c/o Seiko Epson Corporation,
3-5, Owa 3-chome
Suwa-shi, Nagano-ken(JP)
Inventor: **Ito, Yoshikazu**
c/o Seiko Epson Corporation,
3-5, Owa 3-chome
Suwa-shi, Nagano-ken(JP)
Inventor: **Ito, Kiyoshi**
c/o Seiko Epson Corporation,
3-5, Owa 3-chome
Suwa-shi, Nagano-ken(JP)
Inventor: **Koyabu, Akira**
c/o Seiko Epson Corporation,
3-5, Owa 3-chome
Suwa-shi, Nagano-ken(JP)

(74) Representative: **Hoffmann, Eckart**
Patentanwalt Blumbach & Partner
Bahnhofstrasse 103
D-82166 Gräfelfing (DE)(54) **Ink ribbon shift control.**

(57) A compact printer capable using any of a plurality of printing tracks or colors of an ink ribbon is disclosed in which line drive means for driving a print head (1) are also used for operating ribbon shift means in order to select a desired printing track or color. Preferably, the stroke of a reciprocating movement of the print head is divided into a printing region within which printing on a recording paper (7) is performed, and two non-printing end regions. The ribbon shift means is operated in response to the line drive means moving the print head into a non-printing end region. Moving the print head into one end region causes a track setting mechanism to set a desired printing track, whereas moving the print head into the opposite end region causes a track resetting mechanism (50) to release the track setting by the track setting mechanism. A cam member having a stepped cam face provided on a pivotally supported setting lever which is operated by engagement with the print head is used as the track setting mechanism. Also disclosed is a control meth-

od for controlling this printer such as to allow multi-color printing.

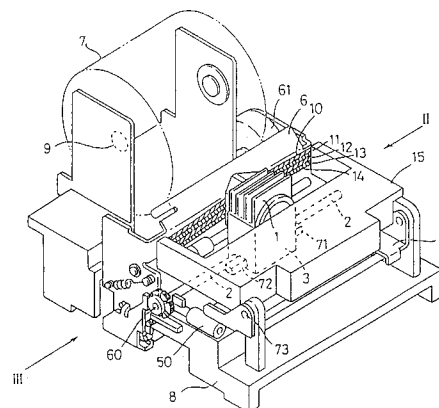


FIG. 1

EP 0 552 486 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 12 1834

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 854 027 (SMITH ET AL.) 8 August 1989 * column 2, line 51 - column 5, line 22; figures *	1-5,7	B41J35/14
A	---	6,8	
A	EP-A-0 160 832 (INTERNATIONAL BUSINESS MACHINES) 13 November 1985 * page 4, line 10 - page 11, line 15; figures *	1-5,9-14	
A	---	1-7	
A	EP-A-0 158 963 (HONEYWELL INFORMATION SYSTEMS) 23 October 1985 * page 6, line 14 - page 8, line 3; figures *	1-7,9-12	
A	US-A-4 867 587 (KISHIDA ET AL.) 19 September 1989 * column 3, line 46 - column 7, line 32; figures *		TECHNICAL FIELDS SEARCHED (Int. Cl.5)
	-----		B41J
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 03 SEPTEMBER 1993	Examiner RAKOTONDRAJONA C.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	